

RESCUE OF THE FAUNA FROM A PETROLEUM ENVIRONMENTAL ACCIDENT AT IGUAÇU RIVER – ARAUCÁRIA – PARANÁ STATE – BRAZIL

LANGE, R.R.¹; JAVOROUSKI, M.L.²; SOUSA, R.S.¹; ROEDER, L.D.³

¹Departamento de Medicina Veterinária Medicine, UFPR;

²Médico Veterinário, Zoológico de Curitiba;

³Graduanda do Curso de Medicina Veterinária, UFPR.

The objective of this study is to characterize the immediate impact caused on the native fauna of vertebrates by a spill of petroleum that happened on July 16, 2000. This environmental accident was the result of a leak of 4 million liters of cuseana oil (light petroleum, rich in aromatic hydrocarbon and containing arsenic and heavy metals: cadmium, copper, lead and mercury), from PETROBRAS (Petróleo Brasileiro S.A.), pipeline polluting the Barigüi and Iguaçu rivers in Araucária, State of Paraná. The rescue operation was carried out by workers and volunteers that helped to save the animals from the water and the land. The accident happened between July 18 and August 23, 2000. During this period 273 animals were rescued: 160 (59%) dead and 113 (41%) alive. From the total number of animals found 121 (44%) were birds being 35 (29%) alive and 86 (71%) dead; 86 (31%) reptiles, being 72 (84%) alive and 14 (16%) dead; 8 (3%) mammals, 4 (50%) alive and 4 (50%) dead; 5 (2%) amphibians, 2 (40%) alive and 3 (60%) dead, and 53 (19%) dead fish. The dead animals found were properly packed up and sent to classification. The alive ones were submitted to the cleaning of nostrils, eyes and mouth with paper-towel, conditioned in cardboard boxes and directed to one of the two posts located in strategic points near Iguaçu river. The birds were submitted to oral hydration through a crop tube in the proportion of 5% of the body weight. The solution used was composed by 300 ml of corn glucose, 600 ml of water and a tablespoon of powdered activated coal; maintained to 40°C in thermic bottles (other animals didn't receive hydration). Due to the low environmental temperatures (-6°C in the coldest dawn) the posts were heated. After the attendance, the animals were conditioned in cardboard boxes containing bags of hot water and immediately transported in acclimatized vehicles to the emergency Veterinary Hospital, installed at the Passeio Público (Curitiba Zoo – Prefeitura Municipal de Curitiba). At the Hospital, the animals that were in shock received parenteral hydration and therapy with cortisol. Only after the recovery from the shock, the oiled animals were submitted to the standard process to remove the oil through successive baths with warm water (40°C) and neutral liquid detergent. After this, they were dried with towels and by the application of infrared lamps. After these procedures the animals were housed with appropriate food. From the total number of rescued and recovered animals, 47 were relocated in similaran similar to the one where the capture occurred in August, 24. From the total, 21 were retained for research projects. The mortality rate during the rehabilitation period was 97% for birds, 8% for reptiles, 50% for mammals, and 50% for amphibians. By the analysis of these values, the conclusion was that the great mortality of the birds (endothermic) was due to secondary hypothermia due to the loss of thermal impermeability and caloric exhaustion, associated to the low environmental temperatures and to the small body volume of the affected species; in the reptiles (ectothermic) the caloric exhaustion didn't happen. The mortality in this short period (first 30) days, was attributed to thermoregulation problems and not to chemical causes.

Key Words: Environmental impact; fauna rescue; petroleum pollution.
Research financed by Petrobras.